Matthew Brown
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The Fall of a Scientific Power

Science and Engineering have become difficult fields to enter because of a decreasing level of job security. How does one know that they will not be replaced by an outsourced entity in order to save the company money? Job security is one of the most important factors in determining a career; and with the fears of losing a job to a foreign competitor willing to do the job for less, science does not seem like a very sound decision. This is an example of outsourcing, an increasingly popular form of saving money by hiring outside workers to do a job for either less money, or simply the savings made by not giving the outside worker benefits. With this reasoning, companies can hire hundreds of freelance workers to do a single task for a set amount of cash instead of having to give a permanent employee yearly pay with benefits and retirement.

Outsourcing has been a controversial issue creating many heated debates. It is seen as benefiting both the origin and destination country through free trade, providing jobs to the destination country and lower cost of goods and services to the origin country. This makes both sides see increase in the value of goods. And the total number of job increases in both countries since those workers in the origin country that lost their job can move to higher-value jobs in which their country has a comparative advantage.

On the other hand, job losses in developed countries have sparked opposition to outsourcing. Further, people argue that the qualities of any new jobs in developed countries are less than the jobs lost overseas and offer lower pay. They argue with some economists' assertions that more education is the key to producing higher-value jobs since a great deal of highly-educated workers such as software engineers, accountants, radiologists, and journalists have been displaced by highly-educated and cheaper workers

from India and China. Traditionally "safe" jobs in R&D and the Science, Technology, Engineering, and Mathematics fields are now believed to be endangered as higher proportions of workers are trained for these fields in developing nations (http://www.hartford-hwp.com/archives/24/251.html). If workers in developing countries can do all jobs cheaper, then what work will be left for workers in developed countries? And why should workers in developed countries support the outsourcing of their own jobs for the sake of lower priced goods, especially when they'll have less or no money to buy those goods?

For decades, the labor forces have been moving from manufacturing to services in developed countries. This has caused a falling employment in manufacturing, although the total employment has been rising in many countries (http://www.wired.com/news/business.html). Some attribute that to outsourcing.

Workers in third world countries often do not have sufficient legal protection to avoid exploitation. Companies, in fact, have moved to these countries specifically to avoid these laws. Lack of health benefits for workers, lack of child labor laws, lack of worker retirement benefits or pension costs, lack of federal or state unemployment tax, and avoiding organized labor all reduce labor costs.

The transfer of knowledge outside the country creates competitors to the original companies themselves. Chinese manufacturers are already selling their goods directly to their overseas customers, without going through their previous domestic intermediaries that originally contracted their services. In the 1990's and 2000's, American automakers increasingly turned to China to create parts for their vehicles. By 2006, China took this knowledge and announced that they will begin competition with American automakers in

their home market by selling fully Chinese automobiles directly to Americans (http://www.techra.com/mambo/index.php?option=com_weblinks&catid=31&Itemid=23).

Now is there a public responsibility to encourage students towards the direction of science and engineering: absolutely not. The public schools are there to educate the students in many areas with an unbiased opinion. It is up to the mature mind of the student to form his or her own conclusion about which career they would like to pursue. Telling students which area they should pursue violates every freedom within that student because they will be stuck with that career for the rest of their lives.

The students yearn for knowledge is their own motivation. If the person really wants to pursue a career in science, he or she will not let a smaller paycheck get in the way. Motivation should come from the heart and not from the wallet. The public should not have to bribe students to motivate them towards the science departments; and if they do, then they're probably recruiting the wrong types of people who don't deserve the job. Many greedy people often hate their job, but are in it only for the money. These are not the kind of people we, as a society, want to spend all of our funding on and depend on to do our most important research. The epitome of the perfect scientist is self-motivated, excited, and ambitious, who loves to question why and then find answers to those problems. Groundbreaking research is always done with hard work and long hours, and plenty of enthusiasm.

The public should not have to 'trick' students into following a career in science or engineering. The students should follow their hearts towards the career they truly want to be involved. In order for the Science career to thrive, the people must be confident that they can have a secure job, without the fear of being replaced by an outsourced entity.

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